

THE ANDROECIUM OF *SURIANA MARITIMA*

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One member of the flora of the Jewfish Chain in the central Bahamas, the flora of which will be more fully described elsewhere (Nickerson et al., 1976) is *Suriana maritima* L., the Bay Cedar, a shrub found along open shores above high-tide line. Petal fall and stamen drop occur within 6 hours of early-morning anthesis. In January, 1971, half-way through the five-month winter dry season, 20 flowers and buds from three plants on Hummingbird (Jewfish) Cay and 15 from two plants on Coakley Cay (the two islands lie about four miles apart in the Jewfish Chain) were dissected and compared in the laboratory. In January, 1972, 32 buds from 7 plants on Hummingbird Cay and 25 buds from 4 plants on Coakley Cay were dissected while still unopened and attached to the plants. No differences in androecial patterns occurred in comparisons between either successive years or different islands.

Britton and Millspaugh (1920) described this monotypic taxon as having 10 stamens. We found the number of stamens per flower to range from 5 to 8; no bud or flower ever had 10 stamens but always had at least 5. The remaining 5 members of the androecium, if present, consisted of combinations of fertile stamens and staminodia. On both Coakley Cay and Hummingbird Cay, the most commonly-occurring androecial situation in 92 flowers examined was 5 stamens and 5 staminodia. The range was from 5 and 0 to 8 and 1 for stamens and staminodia, respectively. The five fertile stamens were always very slightly inward of any outer row members and always opposite the sepals (thus obdiplostemonous), and had long subulate filaments. The remaining (outer row) members of the androecium were always opposite the petals, their subulate filaments

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were invariably shorter and, if present, the anthers easily abscised. Staminodia were the same size and shape as the filaments of these shorter stamens.

Britton and Millspaugh (1920) cited Lindley (1836), which we could not obtain for examination. In Lindley's (1847) 2nd edition of the *Vegetable Kingdom*, he quoted for *Suriana* his own first edition of the same book (1837) as follows: "Stamens indefinite, hypogynous, placed in a single row; filaments subulate"; he quoted Arnott (1834), with confirmation attributed to Endlicher, that "stamens are opposite the (5) sepals." Lindley figured only one stamen, which he had adapted from an unnamed 1820 source. Arnott's (1834) description was: ". . . stamens 5, alternate with the petals, sometimes with 5 alternating ones that are occasionally abortive, all inserted with the petals, filaments persistent, distinct, subulate from a broad base. . . ." Our findings support this description in part. Earlier, Linnaeus (1753), in his *Species Plantarum*, classified *Suriana* in his *Pentandria Pentagynia*. In Edition 2 of his *Genera Plantarum* (1742), Linnaeus noted, for *Suriana*, "filaments 5"; again in Edition 5, 1754, his observation was the same. Yet in Edition 6 (1764) Linnaeus classified *Suriana* under the *Decandria Pentagynia*. Possibly he assumed the missing members or parts were lost in the handling of his specimens.

Airey-Shaw's (1966) compendium incorrectly cited Gutzwiller's 1961 study, conducted on 41 preserved flowers from Florida and Cuba. She observed that the stamens were obdiplostemonous, with those of the outer row sometimes sterile and sometimes missing. Those of the inner row she found always to be fertile. Her findings are in agreement with ours, but she did not mention filament size differences between the two rows. The amended description of *Suriana maritima* L., family Surianaceae, is: Obdiplostemonous androecium of 5 (up to 10) fertile members inserted just above the petals; stamens opposite the sepals 5, with subulate filaments: stamens or staminodia opposite the petals 0-5, with shorter subulate filaments.

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